

June 14, 2006  
Case No.: 10030346-1 (8770/31)  
Serial No.: 10/821,087  
Filed: APRIL 8, 2004  
Page 2 of 9

### **AMENDMENTS TO THE CLAIMS**

Please amend the claims as follows:

1. (Original) A color-tunable light emitter, comprising:  
a first electrode;  
a light-generating layer adjacent the first electrode, the light-generating layer operable to generate light in a band of wavelengths;  
an electro-optical layer;  
a second electrode adjacent the electro-optical layer, and  
a corrugated metal layer between the light-generating layer and the electro-optical layer, the corrugated metal layer coupling a sub-band of the light from the light-generating layer to the electro-optical layer, the sub-band having a center wavelength dependent on a voltage applied to at least one of the electrodes.
2. (Original) The light emitter of claim 1, additionally comprising a diffuser layer adjacent the second electrode.
3. (Original) The light emitter of claim 1, additionally comprising an optical waveguide between the light-generating layer and the corrugated metal layer:
4. (Original) The light emitter of claim 3, in which the optical waveguide comprises a layer having a thickness in the range from about 500 nm to about 1,000 nm.
5. (Original) The light emitter of claim 4, in which the layer comprises a material selected from nitrides and fused silica.

June 14, 2006

Case No.: 10030346-1 (8770/31)

Serial No.: 10/821,087

Filed: APRIL 8, 2004

Page 3 of 9

6. (Original) The light emitter of claim 1, in which the light-generating layer comprises a material selected from an electro-luminescent material, a photo-luminescent material, and a cathode-luminescent material.
7. (Original) The light emitter of claim 1, in which the electro-optical layer comprises liquid crystal material.
8. (Original) The light emitter of claim 7, in which the liquid crystal material is a nematic liquid crystal material and is encapsulated in a porous silicon matrix.
9. (Original) The light emitter of claim 1, in which the second electrode is transparent in the band of wavelengths.
10. (Original) The light emitter of claim 1, in which:  
the light generated by the light-generating layer has a brightness dependent on a first voltage applied between the first electrode and the corrugated metal layer; and  
the center wavelength of the sub-band is dependent on a second voltage applied between the second electrode and the corrugated metal layer.
11. (Currently amended) A method for generating color-tunable light, the method comprising:  
providing an electro-optical layer and a corrugated metal layer;  
juxtaposing the corrugated metal layer and the electro-optical layer;  
illuminating the corrugated metal layer with light in a band of wavelengths;  
coupling a sub-band of the light through the corrugated metal layer to the electro-optical layer, the sub-band having a center wavelength; and  
adjusting the refractive index of the electro-optical layer to tune the center wavelength by changing a voltage across the electro-optical layer.

June 14, 2006  
Case No.: 10030346-1 (8770/31)  
Serial No.: 10/821,087  
Filed: APRIL 8, 2004  
Page 4 of 9

12. (Cancelled)
13. (Original) The method of claim 11, in which the illuminating comprises:  
providing a light-generating layer; and  
juxtaposing the light-generating layer and the corrugated metal layer.
14. (Original) The method of claim 13, in which:  
the light-generating layer comprises photo-luminescent material; and  
the illuminating additionally comprises optically pumping the photo-luminescent material.
15. (Original) The method of claim 13, in which:  
the light-generating layer comprises electro-luminescent material; and  
the illuminating additionally comprises applying voltage across the electro-luminescent material.
16. (Original) The method of claim 11, in which the illuminating comprises generating the light by one of electro-luminescence, photo-luminescence, and cathode-luminescence.
17. (Original) The method of claim 11, in which the illuminating comprises:  
providing an optical waveguide layer;  
juxtaposing the optical waveguide layer and the corrugated metal layer; and  
illuminating the optical waveguide layer.

June 14, 2006

Case No.: 10030346-1 (8770/31)

Serial No.: 10/821,087

Filed: APRIL 8, 2004

Page 5 of 9

18. (Original) A color display, comprising:  
opposed electrodes, at least one of the electrodes comprising electrode segments defining respective color-tunable light emitters; and  
between the electrodes, a layer structure comprising:  
a light-generating layer operable to generate light in a band of wavelengths.  
an electro-optical layer, and  
a corrugated metal layer between the light-generating layer and the electro-optical layer, the corrugated metal layer coupling a sub-band of the light generated by the light-generating layer to the electro-optical layer, the sub-band having a center wavelength, the center wavelength of each of the color-tunable light emitters dependent on a voltage applied to the respective one of the electrode segments.
19. (Original) The display of claim 18, additionally comprising dielectric spacers between the electrode segments.
20. (Original) The display of claim 19, in which the dielectric spacers extend through the layer structure.
21. (Original) The display of claim 18, in which the electro-optical layer comprises liquid crystal material.
22. (Original) The display of claim 21, in which the liquid crystal material is a nematic liquid crystal material and is encapsulated in a porous silicon matrix.
23. (Original) The display of claim 18, in which the second electrode is transparent in the band of wavelengths.
24. (Original) The display of claim 18, in which both electrodes comprise electrode segments.

June 14, 2006  
Case No.: 10030346-1 (8770/31)  
Serial No.: 10/821,087  
Filed: APRIL 8, 2004  
Page 6 of 9

25. (Original) The display of claim 24, in which, in each of the color-tunable light emitters:  
the light generated by the light-generating layer has a brightness dependent on a first voltage applied between the corrugated metal layer and the respective one of the electrode segments the one of the electrodes adjacent the light-generating layer; and  
the center wavelength of the sub-band is dependent on a second voltage applied between the corrugated metal layer and the respective one of the electrode segments of the electrode adjacent the electro-optical layer.
26. (New) A method for generating color-tunable light, the method comprising:  
providing an electro-optical layer and a corrugated metal layer;  
juxtaposing the corrugated metal layer and the electro-optical layer;  
illuminating the corrugated metal layer with light in a band of wavelengths;  
coupling a sub-band of the light through the corrugated metal layer to the electro-optical layer, the sub-band having a center wavelength; and  
adjusting the refractive index of the electro-optical layer to tune the center wavelength;  
wherein the illuminating comprises providing a light-generating layer comprising electro-luminescent material, and juxtaposing the light-generating layer and the corrugated metal layer;  
and  
the illuminating additionally comprises applying voltage across the electro-luminescent material.